

Linking housing and access: visitor numbers on internationally important heathland sites in southern England

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A real and current issue for nature conservation in the UK is how to accommodate increasing pressure for new homes and other development without compromising the integrity of protected sites. These issues are particularly acute in Dorset and the Thames Basin in southern England, where fragmented heathland sites of international importance for nature conservation lie within and adjacent to large urban conurbations. Lowland heath has been reduced to less than 10% of its former European extent due to changing patterns of land use, including agricultural intensification, afforestation and urban and industrial development (Rose et al. 2000). The importance of conserving the remaining areas of lowland heath together with their characteristic species of birds, reptiles, amphibians, invertebrates and plants is recognised through their legislative classification as Special Areas of Conservation under the EU Habitats Directive (92/43/EEC) and Special Protection Areas under the EU Birds Directive (79/409/EEC). Such sites carry the highest level of protection, transposed into UK law through the Habitats Regulations. A Habitat Action Plan has been developed for lowland heathland, and a number of species associated with this habitat are the focus of UK Biodiversity Action Plans.

Meanwhile, the UK population is projected to rise from the current levels of 61 million to around 71 million by 2031. This causes continued and increasing pressure on, and competition for land, especially in southern England. The Government's Regional Spatial Strategy for South West England includes proposals for over 40,000 houses to be built by 2026 with the region of South East Dorset encompassing the urban heath sites. The UK government's Countryside Rights of Way Act of 2000 provides the right of public access on foot to heaths, downland, moors and mountain areas. Liley & Clarke (2003) had previously shown a negative association between the nest density of the rare and protected nightjar on a heath and the proportion of the surrounding 500m which was built-up (mostly residential) land; this and other work has led to a ban on new housing within 400m of any protected heath site and a programme of measures to minimise impacts from development within 0.4-5km.

In partnership with Natural England, the Royal Society for the Protection of Birds and local planning authorities, we have tried to build up an understanding of visitor rates and their potential wildlife impacts on heath sites in Dorset and on the Thames Basin heaths in the high density commuter belt south west of London.

We used a combination of on-site visitor questionnaire surveys at heath access points and postal household questionnaire surveys to estimate visitor numbers and patterns of usage. When combined with the spatially referenced distribution of heathland sites and their recognised access points and national databases of housing density by Postcode, we were able to derive models of visitor rates by distance from heath site. In such urban heaths, it was crucial to analyse separately visitors coming from home on foot from those arriving by car, the latter visitor numbers were controlled, perhaps unsurprisingly, by the number of car parking spaces at or very near the access points. In Dorset, 75% of visitors arriving on foot lived within 500m of the access points, whereas more than 25% of visitors arriving by car lived over 5km away. Eighty percent of all Dorset heath visitors said their main purpose for visiting was to walk their dog(s). Overall 90% of the dogs on heaths were allowed off their leads and owners' replies suggest that although 80% of dog-walkers

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stay on the heath paths and tracks nearly half (47%) of all dogs wander off the paths and tracks with the potential to disturb wildlife (Langston et al. 2007).

Visitor interview information on the routes and distances travelled within heath sites was used to build simple models of the expected visitor spatial distribution from access points within heath sites. Spatially-explicit GIS models were developed to predict the numbers of visitors to any heath access point and thus site, based on both current housing density and distribution and once augmented by proposed additional housing. Such approaches can be used to help inform planning and management policies to minimise the impact of projected increased recreational visitor numbers on protected heaths. Such models also provide the opportunity to explore the spatial distribution of key species in relation to visitor pressure.

References

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